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INFORMATION REPORT

PREPARED AND DISSEMINATED BY
CENTRAL INTELLIGENCE AGENCY

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COUNTRY
Hungary

ARMY review completed.

SUBJECT

Impregnation Process for Protective Clothing Material for CBR Warfare

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2. Among other things, this rubber factory makes a material which is used by the Hungarian Army in the manufacture of protective clothing for CBR warfare.

3. For the manufacture of this material, the factory has a machine

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which impregnates a bolt of textile material with Opanol, which is a chemical obtained from the Soviet Union. Two different widths of material can be impregnated by this machine: one is 80 centimeters wide and from 30 to 70 meters long; the other is 105 centimeters wide and also from 30 to 70 meters long.

4. The impregnating process requires that the Opanol be mixed with benzene in a mixing container where it is reduced to a liquid state. The mixture is then transferred by a worker, using a scoop, to a trough on the side of the impregnating machine. Attached to the bottom of the trough is a long metal blade. On the same side of the machine is a spindle on which is placed a bolt of textile material. This cloth feeds through the machine and winds up on another spindle on the other side of the machine. As the cloth goes through the machine, it passes under the long metal blade which is positioned so that there is a slight opening between the blade and the cloth. The mixture of Opanol and benzene flows down in a thin sheet-like stream onto the cloth.

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Inside the machine, the cloth passes over an iron, electric heating table. The benzene is evaporated and, at the same time, the heat dries the Opanol coating left on the cloth. The cloth passes through the machine and is wound on the spindle on the other side. Then the bolt of cloth is taken off and the procedure is repeated once or twice more with the same bolt of cloth to ensure that the cloth has a good covering of Opanol. This covering of Opanol is only on one side of the cloth. After the coating process has been completed, the impregnated cloth is examined on a large inspection table for possible flaws in the covering. Flaws are marked with a blue crayon. If the covering is found to be satisfactory, the material is approved. Later one or two chemical officers from the Hungarian Army come and inspect the impregnated cloth. If they give the cloth final approval, it is taken for the Hungarian Army. If they disapprove it, the rejected cloth is used for various other purposes such as aprons for people working with acids.

5. Cloth which has been impregnated with Opanol is light green in color and will afford protection against such things as gases and acids.

[redacted] classified CONFIDENTIAL, is a drawing of the protective clothing impregnation machine described in this report. 25X1

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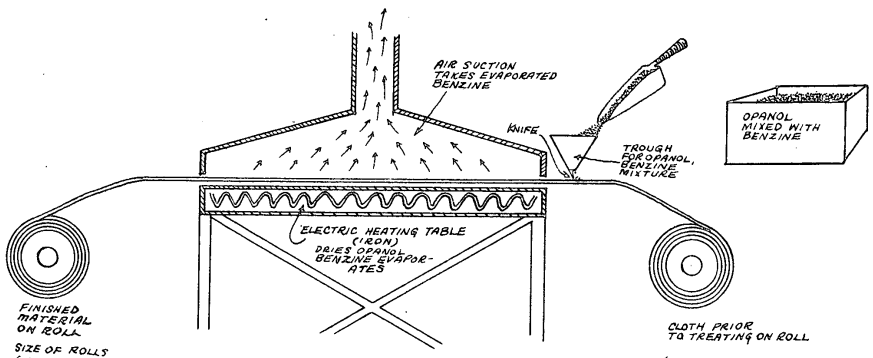
Approved For Release 2008/08/04 : CIA-RDP80T00246A000601280001-3



PROTECTIVE CLOTHING IMPREGNATION MACHINE